

AMENDMENTS TO THE CLAIMS

Please amend the claims:

1. (withdrawn) A steering switch for a vehicle comprising:
 - a support member which is mounted on a steering wheel, the steering wheel having an annular ring and spokes formed inside the ring;
 - a manipulating knob which is rotatably supported on the support member such that the manipulating knob is rotatable in front and rear directions of the steering wheel, the manipulating knob projecting inside a space surrounded by the ring and the spokes;
 - a rotary support body which is mounted on the support member and rotatably supports the manipulating knob;
 - biasing means which bias the manipulating knob such that the manipulating knob returns to a neutral position; and
 - signal changeover means which are capable of changing over two kinds of electric signals in response to a rotational direction of the manipulating knob from the neutral position, wherein
 - a fulcrum of rotation of the manipulating knob is provided by supporting both ends of a rod which is inserted into the manipulating knob using the rotary support body,
 - wherein the rotary support body is constituted by joining a first rotary support member which is arranged at one side of the manipulating knob and supports one end of the rod and a second rotary support member which is arranged at another side of the manipulating knob and supports another end of the rod, and
 - wherein one end of the rod is fixedly mounted on one of the first rotary support member and the second rotary support member while another end of the rod is engaged with another one of the first rotary support member and the second rotary support member.
2. (withdrawn) A steering switch for a vehicle according to claim 1, wherein the manipulating knob, the biasing means and the signal changeover means are integrally put together by way of the rotary support body to form an assembled body.

3. (withdrawn) A steering switch for a vehicle according to claim 2, wherein the support member is formed by joining a front-side support which is arranged at a front side of the steering wheel and a back-side support which is arranged at a back side of the steering wheel, and

wherein a housing which houses the assembled body therein is provided to one of the front-side support and the back-side support.

4. (withdrawn) A steering switch for a vehicle according to claim 1, wherein a spacer which holds a distance dimension between the first rotary support member and the second rotary support member to a given dimension is provided between the first rotary support member and the second rotary support member, wherein one end of the spacer is fixedly mounted on one of the first rotary support member and the second rotary support member, and wherein another end of the spacer is engaged with another of the first rotary support member and the second rotary support member using a screw.

5. (withdrawn) A steering switch for a vehicle according to claim 1, wherein the signal changeover means include a printed circuit board having a conductive pattern for changing over the two kinds of electric signals and a slide contact which is slidable on the printed circuit board along with rotation of the manipulating knob,

wherein the printed circuit board is arranged parallel to the rotational direction of the manipulating knob and is mounted on one of the first rotary support member and the second rotary support member, and

wherein the slide contact is mounted on the manipulating knob such that the slide contact is slidable on the printed circuit board along with the rotation of the manipulating knob.

6. (currently amended) A steering switch for a vehicle comprising:

a support member which is mounted on a steering wheel, the support member having an annular ring and spokes formed inside the ring;

a manipulating knob which is rotatably supported on the support member such that the manipulating knob is rotatable in front and rear directions of the steering wheel, the manipulating knob projecting inside a space surrounded by the ring and the spokes;

a rotary support body which is mounted on the support member and rotatably supports the manipulating knob;

biasing means which bias the manipulating knob such that the manipulating knob returns to a neutral position; and

signal changeover means which are capable of changing over two kinds of electric signals in response to a rotational direction of the manipulating knob from the neutral position, wherein

the manipulating knob, the rotary support body, the biasing means and the signal changeover means are integrally put together to form an assembled body,

wherein the support member is formed by joining a front-side support casing member which is arranged at a front side of the spokes and a back-side support casing member which is arranged at a back side of the spokes, and

wherein a housing which houses the assembled body therein is provided to one of the front-side support casing member and the back-side support casing member, and

wherein the support member has a space into which at least one spoke is inserted when the front-side casing member and the back-side casing member are mounted to the at least one spoke.

7. (currently amended) A steering switch for a vehicle according to claim 6, wherein, the housing has a positioning portion on an inner wall of the housing, a positioning portion which is engaged with a given portion of the assembled body housed in the housing the assembled body being insertable into the housing so as to position the assembled body with respect to the housing is mounted.

8. (currently amended) A steering switch for a vehicle according to claim 6, wherein the housing is formed on the back-side support casing member.

9. (currently amended) A steering switch for a vehicle according to claim 8, wherein the housing has an insertion opening for inserting the assembled body into the housing at a position which faces the front-side support casing member.

10 – 13. (cancelled)

14. (withdrawn) A steering switch for a vehicle comprising:

a casing which is mounted on a steering wheel having an annular ring and spokes disposed inside the ring and is formed by joining a front-side casing member which is arranged at front sides of the spokes and a back-side casing member which is arranged at back sides of the spokes;

a first switch which is housed in one of the front-side casing member and the back-side casing member and a second switch which is housed in another casing member;

a first terminal which is mounted on the first switch and transmits an electric signal outputted from the first switch to outside,

a second terminal which is mounted on the other casing member and receives the electric signal transmitted from the first terminal;

a first external output terminal which is mounted on another casing member and transmits the electric signal inputted to the second terminal to given equipment; and

a second external output terminal which is mounted on the other casing member and transmits an electric signal outputted from the second switch to other equipment than the given equipment, wherein

the first terminal and the second terminal are respectively arranged at the one casing member and the other casing member such that the first terminal and the second terminal are brought into contact with each other when the one casing member and the other casing member are joined to each other.

15. (withdrawn) A steering switch for a vehicle according to claim 14, wherein a group of external output terminals is formed by collecting the first external output terminal and the second external output terminal at one place.

16. (withdrawn) A steering switch for a vehicle according to claim 14, wherein the first switch is formed by integrally putting together a manipulating knob which is rotatably supported on the casing such that the manipulating knob is rotatable in front and rear directions of the steering wheel, the manipulating knob projecting inside a space surrounded by the ring and the

spokes, a rotary support body which is mounted on the casing and rotatably supports the manipulating knob, biasing means which biases the manipulating knob such that the manipulating knob returns to a neutral position, and signal changeover means which are capable of changing over two kinds of electric signals in response to a rotational direction of the manipulating knob from the neutral position,

wherein the second switch is a push switch which includes a manipulating button exposed to a front side of the front-side casing member, and

wherein the first switch is housed in the back-side casing member while the second switch is housed in the front-side casing member.

17. (withdrawn) A steering switch for a vehicle comprising:

a casing which is mounted on a steering wheel having an annular ring and spokes disposed inside the ring and is formed by joining a front-side casing member which is arranged at front sides of the spokes and a back-side casing member which is arranged at back sides of the spokes; and

a switch which is housed in the casing, wherein

the casing includes snap joining portions which are formed on opposing side faces respectively so as to join the front-side casing member and the back-side casing member,

wherein the snap joining portion includes a pair of snap pawls having resiliency and engaging portions which are engaged with the snap pawls, and

wherein a shape of the snap pawls and a shape of the engaging portions are set such that when an external force of not less than a given magnitude in a direction which makes the front-side casing member and the back-side casing member spaced apart from each other is applied to the casing, an outer force which deflects the snap pawls in a direction away from the engaging portions acts on the snap pawls.

18. (withdrawn) A steering switch for a vehicle according to claim 17, wherein each snap pawl has a projection on which oblique surfaces are formed such that a thickness of the snap pawl is gradually decreased from a distal end to a proximal end of the snap pawl, and wherein the engaging portion is formed of a hole having an opening and a depth sufficient to allow the whole projection to be fitted therein.

19. (withdrawn) A steering switch for a vehicle according to claim 17, wherein the casing includes, in addition to the snap joining portion, another snap joining portion for joining the front-side casing member and the back-side casing member, and a joining releasing portion for releasing a joined state of the other snap joining portion by inserting a specific tool.

20. (withdrawn) A steering switch for a vehicle according to claim 19, wherein, in a vertical direction of the steering wheel, the snap joining portions are arranged at an upper portion of the casing while the other snap joining portion and the engagement releasing portions are arranged at a center of a lower portion of the casing.

21. (new) A steering switch for a vehicle according to claim 6, wherein the at least one spoke comprises an upper spoke and a lower spoke, and the space is provided in correspondence to the spokes.

22. (new) A steering switch for a vehicle according to claim 21, wherein the support member includes a reinforcing portion which divides the space into a space corresponding to the upper spoke and a space corresponding to the lower spoke and bridges between the front-side casing member and the back-side casing member so as to reinforce the support member.

23. (new) A steering switch for a vehicle according to claim 6, wherein the front-side casing member and the back-side casing member of the support member are connected by snap fitting.

24. (new) A steering switch for a vehicle according to claim 6, wherein the front-side casing member and the back-side casing member are directly connected to the at least one spoke.

25. (new) A steering switch for a vehicle according to claim 6,
wherein the assembled body includes a first terminal to transmit the two kinds of electric signals from the assembled body to outside,
wherein the other one of the front-side casing member and the back-side casing member is provided with a switch,
wherein the switch is provided on a printed circuit board, and
wherein the printed circuit board has a second terminal to transmit an electric signal from the switch, the second terminal being connected to the first terminal when the front-side casing member and the back-side casing member are connected to each other.

26. (new) A steering switch for a vehicle according to claim 24, wherein at least one of the first terminal and the second terminal has resiliency.

27. (new) A steering switch for a vehicle according to claim 23, wherein the support member includes snap joining portions which are formed on opposing side faces respectively so as to join the front-side casing member and the back-side casing member, wherein the snap joining portion includes a pair of snap pawls having resiliency and engaging portions which are engaged with the snap pawls, and wherein a shape of the snap pawls and a shape of the engaging portions are set such that when an external force of not less than a given magnitude in a direction which makes the front-side casing member and the back-side casing member spaced apart from each other is applied to the support member, an outer force which deflects the snap pawls in a direction away from the engaging portions acts on the snap pawls.

28. (new) A steering switch for a vehicle according to claim 26, wherein each snap pawl has a projection on which oblique surfaces are formed such that a thickness of the snap pawl is gradually decreased from a distal end to a proximal end of the snap pawl, and wherein the engaging portion is formed of a hole having an opening and a depth sufficient to allow the whole projection to be fitted therein.

29. (new) A steering switch for a vehicle according to claim 26, wherein the casing includes, in addition to the snap joining portion, another snap joining portion for joining the front-side casing member and the back-side casing member, and a joining releasing portion for releasing a joined state of the other snap joining portion by inserting a specific tool.

30. (new) A steering switch for a vehicle according to claim 28, wherein, in a vertical direction of the steering wheel, the snap joining portions are arranged at an upper portion of the casing while the other snap joining portion and the engagement releasing portions are arranged at a center of a lower portion of the casing.